

Appl. No. : 09/514,999
Filed : February 29, 2000

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows. Insertions are shown underlined while deletions are ~~struck through~~.

1. (canceled)
2. (currently amended): The method according to Claim 10, wherein said nuclease is a nuclease contained in the ~~yeast somatic components~~ yeast RNA-containing composition.
3. (currently amended): The method according to Claim 10, wherein the ~~yeast somatic components~~ yeast RNA-containing composition ~~are~~is obtained from yeast selected from the group consisting of *Saccharomyces cerevisiae* and *Candida utilis*.
4. (currently amended): The method according to Claim 15, wherein the decomposition step is conducted by digesting the ~~yeast somatic components~~ yeast RNA-containing composition with nuclease added to a solution containing the ~~yeast somatic components~~ yeast RNA-containing composition, at a pH value of 3 -10 and at a temperature of 10-70°C.
5. (currently amended): The method according to Claim 15, wherein the decomposition step is conducted by hydrolyzing at 20-100°C the ~~yeast somatic components~~ yeast RNA-containing composition with alkali added to a solution containing the ~~yeast somatic components~~ yeast RNA-containing composition at a normality of 0.1-5N.
6. (currently amended): The method according to Claim 10, wherein the ~~yeast somatic components~~ yeast RNA-containing composition ~~are~~is an extract obtained by physically crushing yeast using a high-pressure homogenizer and an ultrasonic disintegrator.
7. (currently amended): The method according to Claim 10, wherein the ~~yeast somatic components~~ yeast RNA-containing composition ~~are~~is an extract obtained from yeast using hot water at a pH value of 4-8 and at a temperature of 90-100°C, wherein sodium chloride is added to a yeast suspension with a yeast concentration of 5-25% to make a salt concentration of 1-10%.
8. (currently amended): The method according to Claim 10, wherein the ~~yeast somatic components~~ yeast RNA-containing composition ~~are~~is an extract obtained by autolyzing yeast.
9. (canceled)

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10. (currently amended): A method of obtaining polyamines, comprising the steps of: providing ~~yeast somatic components~~ a yeast RNA-containing composition selected from the group consisting of extracts obtained from yeast by physical crushing, extracts obtained from yeast by autolysis, extracts obtained from yeast with hot water, and yeast RNA compositions; subjecting ~~yeast somatic components~~ yeast RNA-containing composition to a decomposition step, comprising nuclease digestion or alkali hydrolysis, of increasing the yield of polyamines recovered in a subsequent recovery step by approximately 2-3.2 times the yield of polyamines recovered in the subsequent recovery step without this decomposition step, under conditions where the yield with this decomposition step when continuing for approximately 15-18 hours is approximately 2-3.2 times the yield without this decomposition step, wherein said ~~yeast somatic components~~ yeast RNA-containing composition ~~are~~is treated in solution with nuclease added in a concentration of approximately 1-2 mg/ml, at approximately 25-37°C, and at a pH of approximately 6-8, or said ~~yeast somatic components~~ yeast RNA-containing composition ~~are~~is dissolved in a 0.3 N alkali solution at 37°C; and recovering polyamines from the decomposed ~~yeast somatic components~~ yeast RNA-containing composition produced.

11. (previously presented): The method according to Claim 10, wherein the nuclease is selected from the group consisting of deoxyribonuclease I, nuclease P1, nuclease S1, phosphodiesterase I, ribonuclease A, ribonuclease B, ribonuclease T₁, ribonuclease T₂, and ribonuclease U₂.

12. (previously presented): The method according to Claim 10, wherein the alkali is sodium hydrate or potassium hydroxide.

13. (canceled)

14. (currently amended): A method of obtaining polyamines, comprising the steps of: providing ~~yeast somatic components~~ a yeast RNA-containing composition selected from the group consisting of extracts obtained from yeast by physical crushing, extracts obtained from yeast by autolysis, extracts obtained from yeast with hot water, and yeast RNA compositions; subjecting ~~yeast somatic components~~ yeast RNA-containing composition to a decomposition step, comprising nuclease digestion or alkali hydrolysis, of increasing the yield of polyamines recovered in a subsequent recovery step by approximately 2-3.2 times the yield of

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polyamines recovered in the subsequent recovery step without this decomposition step, under conditions where said ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ ~~are~~ is treated in solution with nuclease added in a concentration of approximately 1-2 mg/ml, at approximately 25-37°C, and at a pH of approximately 6-8, or said ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ ~~are~~ is dissolved in a 0.3 N alkali solution at 37°C; and

recovering polyamines from the decomposed ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ produced.

15. (currently amended): A method of obtaining polyamines, comprising the steps of: providing ~~yeast somatic components~~ ~~a yeast RNA-containing composition~~ ~~selected from the group consisting of extracts obtained from yeast by physical crushing, extracts obtained from yeast by autolysis, extracts obtained from yeast with hot water, and yeast RNA compositions~~; decomposing said ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ by nuclease digestion or alkali hydrolysis to separate polyamines from high-molecular weight substances in the ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ to a degree achieved when the ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ ~~are~~ is treated for about 15-18 hours in solution with nuclease added in a concentration of about 1-2 mg/ml, at about 25-37°C, and at a pH of about 6-8, or in an about 0.3 N alkali solution at about 37°C; and recovering polyamines from the decomposed ~~yeast somatic components~~ ~~yeast RNA-containing composition~~ produced.